

**STATE OF RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR RESOURCES**

In Re: Proposed Amendments to Air Pollution Control Regulation No. 37, entitled "Rhode Island's Low Emission Vehicle Program".

Decision

Introduction

On 15 October 2004 notice was published in the Providence Journal and was mailed to interested parties announcing a public hearing and comment period to accept comments on the proposed amendments to Air Pollution Control Regulation No. 37. The public hearing was held on 16 November 2004. Written comments were entered into the record at the public hearing. The comment period closed at 4:00 pm of 16 November 2004. This Decision will present the Department of Environmental Management's response to comments and the final regulation for adoption. This Decision considered fully all written and oral submissions respecting the proposed rule. The following is a concise statement of the principal reasons for and against its adoption, and will further incorporate the reasons for overruling the considerations urged against its adoption.

The Administrative Procedures Act requires agencies proposing to amend or promulgate regulations demonstrate the need for amendment or new regulation, demonstrate that no alternative approaches considered would be as effective and less burdensome, identify any overlapping or duplicated state regulations, and determine whether the amendment or new regulation would have significant adverse economic impact on small business or any city or town. Information to comply with those requirements was included in the Fact Sheet, which was available when the Notice of Public Hearing and Comment Period was published. The Fact Sheet is appended to this Decision.

Significant Adverse Economic Impact on Small Business or Any City or Town

The Department determined that the proposed amendments might result in a significant adverse economic impact on automobile dealers. The Notice of Public Hearing and Comment Period announcing these proposed amendments requested proposals as to how the proposed amendments can be changed so any potential adverse economic impact on small business can be minimized or eliminated. The Rhode Island Automobile Dealers Association made comments that addressed DEM's request. Those comments are included with other comments and responded to below.

Response to Comments

This section will present the Department's response to comments made at the public

hearing and written comments received during the comment period. Comments were paraphrased and similar comments were grouped together. The Department's response follows each comment.

Comment: We support the proposal to adopt the California Low Emission Vehicle (LEV) emission standards in Rhode Island (CLF, Toyota of Newport, RIPIRG, 105 e-mail comments from individuals, ECRI, Clean Water Action, Audubon Society of Rhode Island, David A. Brunetti, Clean Air-Cool Planet, Greg Gerritt, ASARI, ALARI, Rep. Arthur Handy, Sen. Lincoln Chafee, Save the Bay)

Response: *No response necessary.*

Comment: We support adoption of the California Low Emission Vehicle emission standards because they will reduce greenhouse gas emissions. (Clean Air-Cool Planet, Clean Water Action, ECRI)

Response: *No response necessary.*

Comment: Adopting LEV will not have an adverse effect on the automotive repair industry (ASARI) nor an economic impact to a citizen of Rhode Island who buys a low emission vehicle. (AASP)

Response: *No response necessary.*

Comment: Adopting the LEV program will allow Rhode Island residents to have the same longer warranties that Massachusetts' residents get for the same vehicles. (Toyota of Newport)

Response: *DEM agrees that the longer warranties required by the LEV program is another reason for Rhode Island to adopt the LEV II program.*

Comment: Adopting the LEV emission standards will not provide environmental additional benefits to Rhode Island. (Honda, AIAM, AAM, DaimlerChrysler, Ford, General Motors) There are substantial and significant benefits to remaining in the federal motor vehicle control program. (EPA) LEV will provide emission reductions beyond federal emission standards (RIPIRG, CLF)

Response: *DEM believes there will be an additional emissions benefit to adopting the California LEV program over the benefit that would accrue by remaining in the federal motor vehicle control program. The emission estimates for future years obtained by applying the EPA MOBILE6 emission factor model using the EPA procedures are not as realistic as the estimates made by the Northeast States for Coordinated Air Use Management (NESCAUM) in its October 2003 White Paper, which show an additional 16% benefit for volatile organic compounds, 25% for air toxics and 2.25% for greenhouse gases. The major difference in the emissions obtained by the two different methods results from a disparity in how*

low emission vehicles are projected to be certified in the future. The EPA procedure assumes low emission vehicles will be certified rather evenly among nine separate standards, the NESCAUM modeling assumes that most vehicles will be certified to the middle standard. A review of model year 2004 certifications shows the NESCAUM projections more accurate. Even the emission projections submitted as comments by AAM using the EPA model and guidance show a 1% additional benefit for volatile organic compound emissions.

Comment: We support the DEM proposal to postpone the effective date of the non-methane organic gas (NMOG) fleet average requirement to 2011. (AIAM, DaimlerChrysler, Ford, General Motors) We support adopting the NMOG fleet averaging standard without delay. (CLF, 105 e-mail comments from individuals, RIPIRG, ECRI, Clean Water Action, David A. Brunetti, ALARI)

***Response:** DEM made the proposal to not require compliance with the NMOG fleet averaging requirement and thereby give manufacturers three years, until model year 2011, to accrue NMOG credits. However we are persuaded that the needs of both commenters who support the DEM proposal and those who ask for the NMOG standard to apply as soon as possible can be served. DEM will amend the final rule for adoption (at section 37.3.3) to require that the NMOG fleet average requirement shall apply to the 2008 through 2010 model years, but that manufacturers will not be required to demonstrate compliance until the reporting required following the 2010 model year. Manufacturers will then be able to take advantage of the credit provisions of California's regulations allowing accrued credits to be used for three years. This method of phasing-in the NMOG fleet average is consistent with how California phased-in the NMOG fleet average in its state.*

Comment: We support DEM's proposal to transition to the ZEV sales mandate by allowing manufacturers to establish ZEV credit accounts in Rhode Island based on a proportion of similar accounts in California. (Honda, AIAM, DaimlerChrysler) If Rhode Island's proposed ZEV credit scheme is robust enough; it will go a long way to solving the "third car" problem. (AAM) We don't support the proposed transition mechanisms. (RIPIRG, CLF, ECRI)

***Response:** DEM proposed the ZEV sales mandate transition mechanisms (see section 37.3.5) to avoid compliance issues caused by Rhode Island's adoption of the standards a number of years after the model year they were first applicable in California. No commenter has made a persuasive argument that there are no transition issues or that Rhode Island would be better served by not allowing the proposed transition mechanisms. The final regulation for adoption need not be changed as a result of this comment*

Comment: We support the provisions for credits for early ZEV sales in Rhode Island. (AIAM, General Motors) We don't support an additional credit multiplier for early ZEV sales. (RIPIRG, ECRI)

Response: *The provision for additional credit for ZEV sales in Rhode Island before the ZEV sales requirement takes effect in model year 2008 (see section 37.3.5 (d)) was proposed to give manufacturers an additional incentive to bring ZEVs to Rhode Island before the regulation requires them to and to provide a mechanism to account for sales mix differences between Rhode Island and California in the early years of Rhode Island's program. DEM still believes this is a reasonable incentive and will not change the proposal in the final regulation for adoption.*

Comment: Rhode Island should amend section 37.3.5 (a) to allow manufacturers to earn credits for ZEV sales prior to MY 2008. (Ford)

Response: *Section 37.3.5 (a) allows manufacturers to establish ZEV credit account balances in Rhode Island based on those accounts in California in model year 2008. This section is the basic account transfer mechanism. It does not include additional ZEV credit for sales before model year 2008 nor does the "offer for sale" requirement of section 37.3.5 (e) apply to those manufacturers choosing to use this mechanism. The ability to earn additional credit for early ZEV sales under this section while also earning credit for ZEV sales in California and without the corresponding assurance of the "offer for sale" requirement that all ZEVs would be available in Rhode Island is overly generous. Allowing too much credit would slow the introduction of ZEVs to Rhode Island in later years of the program. The final regulation for adoption need not be changed as a result of this comment.*

Comment: Courts have determined that the ZEV sales mandate is an emissions standard and held that states must implement identical standards as California and may not implement additional standards, even if the purpose is to "emulate the regulatory scheme actually in place in California". So there is no legal room nor any practical need for delayed enforcement or alternative compliance paths. (CLF)

Response: *The legal precedent that ensures DEM the ability to enforce those standards in a manner consistent with governing law has been longstanding.*

The prevailing view regarding administrative enforcement behavior remains consistent with the insight offered by Justice Scalia while still on the court of appeals: "[I]n designing the most appropriate means to enforce the law, agency discretion is at its zenith and judicial power at its nadir." American Trucking Assocs., Inc. v. ICC, 697 F.2d 1146, 1153 (D.C.Cir.1983) citing Niagara Mohawk Power Corp. v. Federal Power Commission, 379 F.2d 153, 159 (C.A.D.C.1967)(stating, " we observe that the breadth of agency discretion is, if anything, at zenith when the action assailed relates primarily not to the issue of ascertaining whether conduct violates the statute, or regulations, but rather to the fashioning of policies, remedies and sanctions, including enforcement and voluntary compliance programs in order to arrive at maximum effectuation of

Congressional objectives.”).

More recently, Justice Scalia echoed the principle of agency enforcement discretion that was established in the Niagara Mohawk case. In Engine Mfrs. Assoc. v. Southcoast Air Quality Management Dist., 124 S.Ct.1756 (U.S. 2004), a Trade association representing manufacturers of diesel-fueled engines challenged the validity of state air quality management district rules requiring local fleet operators to purchase or lease only vehicles that met state motor vehicle pollution standards. The United States District Court for the Central District of California, 158 F. Supp.2d 1107, Cooper, J., determined that the rules were not preempted by the Clean Air Act (CAA). The United States Court of Appeals for the Ninth Circuit, 309 F.3d 550, affirmed. Certiorari was granted.

The Supreme Court held that the district's rules set "standards," within the meaning of the CAA provision prohibiting adoption or attempted enforcement of any state or local standard relating to control of emissions from new motor vehicles or new motor vehicle engines. In its decision, the Supreme Court noted a distinction between enforcement mechanisms and standards by stating that “[m]anufacturers (or purchasers) can be made responsible for ensuring that vehicles comply with emission standards, but the standards themselves are separate from those enforcement techniques.” Id. at 1761.

The NMOG requirement and ZEV sales mandates are standards relating to the control of emissions that are accompanied by sanctions. DEM is proposing to adopt standards identical to California, but has discretion to design its own enforcement mechanisms. The final regulation for adoption need not be changed as a result of this comment

Comment: Rhode Island should not adopt the California program until the uncertainty of the market acceptance of ZEV technology is stable. (AAM) Dealers will be stranded with vehicles they cannot sell because of the ZEV sales mandate. (General Motors) There should be a mechanism for DEM to quickly withdraw the ZEV regulations if dealers are stranded with ZEVs consumers will not purchase. (General Motors) We suggest delaying ZEV mandate for two years because we don't think there will be enough consumers to purchase ZEVs at the beginning of the ZEV sales mandate. (RIADA) We don't support an "escape hatch" and don't see a need for special accommodation for auto dealers. (ALARI) There will be a demand for ZEVs, and if not, dealers can offer incentives. (Clean Water Action)

Response: *The ZEV sales mandate is an important feature of the LEV II program because it encourages manufacturers to use advanced emission reduction technology to meet ZEV requirements, thereby reducing emissions in the near term and providing a platform for continuing reductions from the new vehicle fleet into the future. The LEV II standards are applicable in other northeast states that have adopted the standards beginning with model year 2005 vehicles, while DEM is proposing the adoption of LEV II beginning with the 2008 model*

year. This difference provides DEM, auto dealers, manufacturers and other stakeholders the opportunity to monitor ZEV sales in other states before the requirement becomes effective in Rhode Island. DEM has made a commitment to keep an open dialogue with auto dealers and manufacturers as LEV II program implementation proceeds and react to any issues that develop because of ZEVs not selling well. Further delaying implementation of the ZEV sales mandate is not warranted.

DEM does not believe it is prudent to include a section allowing DEM, by its own action, to delay implementation. There is no publicly available data that quantifies if certain models are not selling and why they are not selling. An "escape hatch" may remove the incentive for manufacturers and auto dealers to expect that compliance with the ZEV sales mandate is required. However, in response to concerns expressed and/or the actions of or data from other states, DEM has the authority to propose and act on amendments to APC No. 37 that would delay implementation of the ZEV mandate. The public process for amending a regulation would allow all applicable data to be in the public realm and all views to be expressed and considered.

The final regulation for adoption need not be changed as a result of this comment

Comment: When submitting a State Implementation Plan revision, Rhode Island should determine the emission reduction credits consistent with MOBILE6 and EPA's guidance related to California LEV programs. (EPA)

Response: *When DEM submits a State Implementation Plan revision that claims emission reduction credits from the LEV II program, Rhode Island will determine the emission reduction credits using methods that are acceptable to EPA.*

Comment: Rhode Island will not accrue enforceable emission reduction credits until 2011 because the NMOG requirements will not need to be met until 2011. (EPA)

Response: *Note the response to a comment above that the final regulation for adoption will require compliance with NMOG requirement for the 2008 through 2010 model years. This should have an impact on when emission reduction credits begin to accrue.*

Comment: The definition of "new vehicle" should be consistent with California and other states that have adopted the LEV program. (EPA)

Response: *DEM agrees with the comment. The final regulation for adoption will not adopt the proposed amendment for the definition of "new vehicle".*

Comment: California allows PZEV credits earned in model years 2003 and 2004 in excess of 6 percent of PZEV sales to be used as AT-PZEV credits in model year 2005 and 2006 (see Title 13 CCR 1962(b)(2)(D)). Regulation No. 37 should explicitly allow

manufacturers who choose to establish credit balances in Rhode Island under section 37.3.5(b) the use of AT-PZEV credits so generated in the first two years of the Rhode Island program (MY2008 and 2009). (Honda)

Response: *DEM agrees that an accommodation should be made to preserve the option for manufacturers to use excess PZEV credits as AT-PZEV credits when establishing credit balances under section 37.3.5 (b). This will make section 37.3.5 (b), which includes the incentive to bring ZEVs into Rhode Island before required in model year 2008, more attractive to manufacturers. The final rule for adoption will state that excess PZEV credits can be used as AT-PZEV credits in Rhode Island in model years 2008 and 2009.*

Comment: We support allowing proportional credits for NEVs sold in California when they can be registered in Rhode Island. (DaimlerChrysler)

Response: *No response necessary*

Comment: Implementing the LEV program and providing incentives for ZEV sales will be costly to Rhode Island. (AAM, General Motors) The state should develop incentives, such as sales tax, property tax and registration fee exemptions and credits, to encourage consumers to purchase ZEVs. (RIADA) Adopting LEV II will come at little or no cost to consumers or taxpayers. (RIPIRG)

Response: *While there is some added cost to administer the LEV II program in Rhode Island, the proposal to adopt the standards is not contingent on funding of staff or incentives. DEM will administer the program with existing staff. Funding for incentives and infrastructure building is not a requirement for adopting the standards. Such funding is properly discussed in the context of other state budget initiatives and can be proposed by any person. The final regulation for adoption need not be changed as a result of this comment*

Comment: DEM should require the State and municipalities to purchase ZEVs whenever those vehicles meet their transportation needs. (RIADA)

Response: *The proposed requirement is partially in effect now. States (as well as the federal government and some utilities) are currently subject to a requirement under the federal Energy Policy Act of 1992 that 75% of new vehicle purchases operate on an alternative fuel. ZEVs that operate on a fuel other than gasoline can be used to meet that requirement. Rhode Island does operate a number of electric and compressed natural gas vehicles. However, this rule is not the appropriate forum to place an additional requirement on state government or a new requirement on municipalities. The final regulation for adoption need not be changed as a result of this comment*

Comment: Regulation No. 37 should state explicitly that the fuel cell vehicle travel provision is available to manufacturers. (DaimlerChrysler) Rhode Island should allow

the full credit for fuel cell vehicles in California as per CCR 1962(d)(5)(D). (Ford) The "offer for sale" exclusion for fuel cell vehicles should apply to both the base path and the fuel cell path. (Ford)

Response: DEM agrees with the comments. The final regulation for adoption will be changed to include a new item under section 37.3.5 to explicitly state that fuel cell vehicles produced and delivered for sale in Rhode Island will be credited as allowed by Title 13 CCR 1962 (d)(5)(D) and not subject to the credit account transfer ratio calculated in sections 37.3.5 (a) through (d). Also, section 37.3.5 (e) will be changed regarding Type III ZEVs to reference both the base path and the fuel cell path.

Comment: We support the proposal to allow California warranty claims reports to be submitted upon request (General Motors)

Response: No response necessary.

Decision

Based on the comments and the response to comments, it is the decision of the Hearing Officer to adopt the amendments to Air Pollution Control Regulation No. 37 as proposed and with the changes indicated in the response to comments above. The final amended regulation is appended to this decision. The final regulation is to be filed with the Secretary of State and submitted to the Environmental Protection Agency as an amendment to the State Implementation Plan.

Gerald F. McAvoy,
Executive Legal Council
Hearing Officer

Date

Approved:

Frederick Vincent,
Acting Director

Date

Abbreviations

The following abbreviations were used in the Response to Comments section.

| | |
|-------|-------------------------------------------------------|
| AAM | Alliance of Automobile Manufacturers |
| AASP | Alliance of Automotive Service Providers |
| AIAM | Association of International Automobile Manufacturers |
| ALARI | American Lung Association of Rhode Island |
| ASARI | Automotive Service Association of Rhode Island |
| CLF | Conservation Law Foundation |
| ECRI | Environment Council of Rhode Island |
| EPA | Environmental Protection Agency |
| RIADA | Rhode Island Automobile Dealers Association |
| RPIRG | Rhode Island Public Interest Research Group |

State of Rhode Island
Department of Environmental Management
Office of Air Resources

FACT SHEET

In re: Proposed amendments to Air Pollution Control Regulation No. 37 "Rhode Island's Low Emissions Vehicle Program"

Introduction

The Department of Environmental Management (DEM), Office of Air Resources, is proposing to amend Air Pollution Control Regulation (APC) No. 37 "Rhode Island's Low Emissions Vehicle Program". These proposed amendments would adopt the latest California Low Emission Vehicle II (LEV II) new vehicle emission standards. The LEV II standards would apply to new vehicles sold in Rhode Island beginning with model year 2008.

Overview

The federal Clean Air Act generally reserves the ability to set and enforce emissions standard for new vehicles for the federal government except the Act allows the state of California to set new vehicle standards for vehicles sold in that state. However, section 177 of the Clear Air Act allows states other than California to adopt California's new vehicle standards if, among other things, the state adopts standards identical to California's.

DEM adopted the California's Low Emission Vehicle standards in 1996. In 1999 APC Regulation No. 37 was amended to allow automobile manufacturers to comply with the National Low Emission Vehicle program in lieu of complying with the California Low Emission Vehicle program. Rhode Island's commitment to the National Low Emission Vehicle (NLEV) program extends through the 2006 model year. If no action were taken to amend APC Regulation No. 37, the federal new vehicle standards, known as the Tier 2 standards, would apply to new vehicles sold in Rhode Island beginning in the 2007 model year.

California has adopted the second generation of its low emission vehicle program, the LEV II program. Standards for most vehicles are similar to the federal Tier 2 standards. An important feature of the LEV II program is the Zero Emission Vehicle (ZEV) component, which requires that a percentage of new vehicles sold meet zero emission vehicle standards. California encourages auto manufacturers to meet the ZEV component by using a variety of advanced automobile technologies including battery electric vehicles, hybrid-electric vehicles, super low-emitting gasoline vehicles and hydrogen fuel cell vehicles. Both the federal Tier 2 program and the California LEV II program will provide substantial further reductions in new vehicle exhaust emissions (on the order of 90 percent or more) over the next two decades. However, California's standards provide additional emissions reduction benefits over and above what the federal program is expected to achieve.

Description of Proposed Amendments

The amendments being proposed will adopt the California Low Emission Vehicle II program along with the Zero Emission Vehicle component for light-duty vehicles in Rhode Island. The standards are currently in effect in California as well as four other states¹ that have adopted identical standards. The LEV II standards are applicable to MY 2004 and later vehicles in those five states. The Clean Air Act requirement that standards must be adopted two years before the model year for which they are applicable, therefore, 2008 is the first model year for which Rhode Island can adopt the LEV II standards. In proposing these amendments DEM is, of course, interested in adopting the LEV II standards for the 2008 model year. DEM is also interested in avoiding compliance issues that would be caused because of the transition to the LEV II standards. These issues may arise because the LEV II standards would be adopted after the model year they are first applicable in California. See below for areas that could cause compliance issues and DEM's proposed resolution.

Following is a description of the significant amendments being proposed to APC Regulation No. 37. "Old sections" refers to sections of APC Regulation No. 37 numbered as they exist in the current regulation. "New sections" refers to the newly proposed sections or sections that are renumbered as a result of this proposal.

A number of definitions are being proposed for amendment. Definitions were: added to define terms that were included in other amendments or, removed to delete terms that were no longer necessary in the regulation or, amended for added clarity or to be consistent with a corresponding term in California's regulations.

Old sections 37.2.3 and 37.2.4, that allowed the National Low Emission Vehicle compliance option, were deleted. Rhode Island's commitment to NLEV will end with the 2006 model year, thereby allowing adoption of LEV II for MY 2008.

A new section 37.3.2 was added to clarify the distinction between a new and used motor vehicle.

New section 37.3.3 (a) was amended to delay compliance with the non-methane organic gases (NMOG) fleet average requirements to model year 2011. The California regulations allow auto manufacturers to earn NMOG credits and use those credits for up to three years after they are created. If NMOG compliance were required in the first year Rhode Island adopts the LEV II standards in MY2008, manufacturers may not be able to meet the NMOG standard because they didn't have the opportunity to earn NMOG credits in Rhode Island for the prior three years. DEM's proposed solution is to delay compliance for three years to give manufacturers the opportunity to earn NMOG credits, as they have in California. New section 37.3.3 (b) was added to clarify that manufacturers may earn NMOG credits for the model years prior to 2011 according to the procedures set forth in California regulations.

New section 37.3.4 (a) adopts the Zero Emission Vehicle sales requirement. Adoption of this component of the LEV II program will assure that a percentage of vehicles sold in Rhode Island will be the lowest emitting vehicles and will use advanced technology.

¹ They are Maine, Massachusetts, New York and Vermont. Maine has not adopted the ZEV sales requirement.

Manufacturers have been able to earn credits for sales of ZEVs² in California since 1996. Similar to the NMOG discussion above, because Rhode Island will not adopt the LEV II standards until MY 2008, manufacturers may not be able to comply with the ZEV sales requirement without using previously earned credits. However, unlike the NMOG case where compliance was delayed, DEM is proposing to establish voluntary compliance options for manufacturers. These options would allow manufacturers to establish credit account balances in Rhode Island that are proportionally equal to credit account balances they have in California. New section 37.3.5 (a) would establish ZEV credit accounts in Rhode Island at levels proportionally equal to credit accounts manufacturers hold in California at the beginning of MY 2008. The accounts would be proportioned based on the ratio of the number of ZEVs sold in Rhode Island and the number of ZEVs sold in California.

DEM is proposing another voluntary compliance option in new sections 37.3.5 (b) – (d). This option would give manufacturers an incentive to earn additional credits by placing ZEVs in Rhode Island before the ZEV sales requirement takes effect in MY 2008. This option would establish ZEV credit accounts in Rhode Island proportionally equal to accounts in California at the beginning of MY 2005. This option would also replace ZEV credits earned in California in model years 2005 through 2007 with early credits for ZEV sales in Rhode Island for model years 2005 through 2007. As an additional incentive, the amount of ZEV credits earned in Rhode Island would be increased by 25%.

In order to ensure a wide variety of ZEVs are available in Rhode Island, a new section 37.3.5 (e) would require manufacturers who take advantage of the additional ZEV credit incentive to make available in Rhode Island all ZEVs offered in California, except fuel cell vehicles. Fuel cell vehicles are exempted because they are subject to a unique sales requirement applicable to California and all states that adopt identical standards (see Title 13 CCR 1962 (d)(5)(D)).

A new section 37.5.3 was added to require the submission of Failure of Emission-Related Components reports upon DEM's request and to allow manufacturers to submit reports that are submitted to the California Air Resources Board in lieu of Rhode Island specific reports.

The vehicle owner warranty obligations in old section 37.5.2 were deleted because there are no corresponding California requirements.

The reporting requirements in old section 37.6 were updated to be consistent with the corresponding requirement in California.

Old section 37.7, regarding a regional emission testing facility and document repository was deleted. There is no regional facility or repository at this time. If Rhode Island chooses to join such a regional facility and repository in the future, the appropriate amendments will be proposed at that time.

² The term "ZEVs" here and throughout this Fact Sheet refers to Partial ZEVs, Advanced Technology Partial ZEVs and any Zero Emission Vehicle.

Demonstration of Need

Rhode Island is in serious nonattainment of the national ambient air quality standard for ozone averaged over a one-hour period and in moderate nonattainment of the eight-hour ozone standard. Ozone is formed when nitrogen oxides (NOx) react with volatile organic compounds (VOC) in the presence of sunlight and heat. High ozone concentrations can cause irritation of the eyes, nose and throat, coughing, chest pain, shortness of breath, headache and fatigue. These symptoms are exacerbated by exercise and heavy activity. The young, elderly and people who have underlying heart and lung disease are at particular risk of suffering from the ill effects of ozone.

In 1999 on-road vehicles accounted for 37% of Rhode Island's VOC emissions and 56% NOx emissions. Rhode Island's strategy to meet the ozone standards includes reducing emissions from on-road vehicles. Adoption of the California standards will reduce VOC emissions by an additional 16% more than the federal Tier 2 standards in 2020.

Rhode Island ranks among the worst states for added cancer risk from hazardous air pollutants. Vehicles in Rhode Island contribute more than 80% of the air toxics that are currently at levels above health benchmarks. Adoption of the California standards will reduce emissions of VOCs that are toxic (e.g. benzene, formaldehyde and 1,3-butadiene) by an additional 25% over the federal program in 2020.

There is a growing consensus that the anthropogenic emission of carbon dioxide and other greenhouse gases are contributing to climate change. If this trend continues it could have severe impacts on human life and the environment. The transportation sector contributes almost 40% of Rhode Island's greenhouse gas emissions. Adopting the California standards would reduce carbon dioxide emissions from light duty vehicles by 2.25% more than the federal program in 2020.

A state must adopt California standards two years before the model year for which they become effective and it takes a number of years for the newer vehicles to saturate the Rhode Island vehicle fleet. Timely adoption is needed to obtain the emissions benefits as soon as possible.

Alternative Approaches Considered

A group of stakeholders concerned about the adoption of the LEV II standards was formed by DEM in July 2004. The stakeholders included representatives of automobile manufacturers, automobile dealers, and environmental advocacy groups. The purpose of the stakeholders group was to assist DEM in the process of developing proposed regulations. A variety of alternative and voluntary approaches were considered to address specific questions and concerns raised both by DEM and the stakeholders.

Below is an account of the alternatives considered for the major issues in the development of the proposed amendments.

Perhaps the most important issue in the development of the proposed amendments to APC

Regulation No. 37 concerned transitioning to the Zero Emission Vehicle sales requirement. The transition arose as an issue because Rhode Island is proposing to adopt the ZEV component twelve years after manufacturers could begin to earn credits toward compliance in California and because DEM is seeking not to cause compliance issues because of the transition to LEV II standards. A number of suggestions for making the transition were proposed in the amendments, such as: transferring proportional ZEV credits to Rhode Island, the ability to earn credits for early ZEV introduction, and assuring all ZEV models are offered for sale in Rhode Island. The following alternatives approaches on the transition issue were considered, but not proposed:

- An alternative to increase transferred ZEV credit accounts by 50% was considered. This was proposed as a safety margin to account for possible differences in the sales fractions of vehicle models between California and Rhode Island. It was not adopted because, while the sales mix difference may be a compliance issue for some manufacturers, it is not a transition issue per se. However, the 25% additional credit incentive proposed by DEM will provide some safety margin in the early years of Rhode Island's LEV II program for manufacturers who choose to take advantage of that option.
- An alternative was considered that would change the voluntary credit option in new sections 37.3.5 (b) – (e) by: (1) transferring credit account balances in at the beginning of MY 2008 instead of MY 2005; (2) giving credit for Rhode Island ZEV sales in MY 2005 – 2008 with no additional credit incentive, and; (3) having no requirement to offer all ZEV models for sale in Rhode Island. The alternative was not adopted because it is in Rhode Island's best interest to bring advanced technology vehicles into Rhode Island and thereby reduce emissions as soon as possible. DEM believes the proposed new sections 37.3.5 (b) – (e) provide a reasonable incentive to do that without allowing manufacturers to earn an extraordinary amount of early introduction credits, thereby slowing ZEV introduction in MY 2008 and beyond. The alternative proposal does not necessarily provide an incentive to manufactures to bring ZEVs to Rhode Island because, by transferring credit account balances at the beginning of MY 2008 the proportional ZEV sales in California would earn credits here. The "offer for sale" requirement will help assure as wide a variety of ZEV models as possible is available in Rhode Island³. DEM also believes that linking the additional credit incentive and the "offer for sale" requirement is a very reasonable "carrot and stick" approach to bring early ZEV vehicles to Rhode Island.
- An alternative to extend the "offer for sale" requirement to the voluntary credit option in new section 37.3.5 (a) was considered. This was not adopted because that option does not include the ZEV sales incentive "carrot" and therefore should not include the offer for sale "stick".
- An alternative to not include any additional credit incentive was considered. This was not adopted because DEM feels the additional credit incentive is a positive yet reasonable encouragement for manufacturers to introduce ZEVs in Rhode Island early.

³ Also note that the "offer for sale" requirement in new section 37.3.5 (e) is not an onerous burden on manufacturers because it requires only that manufacturers make a "good faith effort" to assure Rhode Islanders who want to buy a ZEV will find that vehicle available for sale.

An alternative was considered to include authority for DEM to delay implementation of the ZEV sales requirement if no market for ZEVs developed. That alternative was not adopted because DEM always has the authority to propose amendments to its regulations, including amendments to delay implementation. It would be difficult to implement such a requirement because there is no publicly available data that objectively quantifies if certain models are not selling well. Including a specific procedure for delaying implementation of the ZEV sales mandate may remove the incentive for manufacturers and auto dealers to expect that compliance with the ZEV sales mandate is required. However, DEM will make a commitment to keep a dialogue open with auto dealers and manufacturers as LEV II program implementation proceeds and react to any issues that develop because of ZEVs not selling well.

An alternative was considered that would require public notification if a manufacturer demonstrates under new section 37.7.3 that an emissions-related recall campaign is not applicable in Rhode Island. This was not adopted because the ability to make this demonstration is allowed in the current regulation and no amendment is being proposed. In any case DEM will make a commitment to notify the public if a manufacturer successfully demonstrates that a recall campaign is not applicable in Rhode Island.

Identification of Overlapped or Duplicated State Regulations

The Office of Air Resources has identified no state regulations that overlap or duplicate the proposed amendments.

Determination of Significant Adverse Economic Impact on Small Business or Any City or Town

The chart below shows the estimated initial vehicle costs and the lifecycle costs of the vehicle types in the LEV II program in model year 2012. These costs were estimated from U.S. Environmental Protection Agency and California Air Resources Board documents. The initial vehicle costs show the incremental additional cost for that type of vehicle over a federal Tier 2 vehicle. The lifecycle costs include the initial vehicle cost as well as cost savings to the owner over the life of the vehicle resulting from things such as better fuel efficiency and warranty service for emissions related repairs. It is expected that manufacturers will be transitioning from low volume production to high volume production during early years of the LEV II program in Rhode Island, so costs will be declining. Assuming manufacturers are producing Advanced Technology-Partial ZEVs at a high volume by 2012, consumers buying a MY 2012 AT-PZEV will pay an average of \$1,228 more for that vehicle. But over the life of that vehicle the consumer's additional cost will be only \$639.

| Cost Basis | Production Volume | LEV II (1) | Ultra LEV II | Super Ultra LEV | Partial ZEV | Advanced Technology-Partial PZEV | City ZEV |
|----------------------|-------------------|------------|--------------|-----------------|-------------|----------------------------------|----------|
| Initial Vehicle Cost | Low Volume | \$0 | \$50 | \$128 | \$628 | \$3,428 | \$7,728 |
| | High Volume | \$0 | \$50 | \$128 | \$628 | \$1,228 | \$1,628 |
| Lifecycle Cost | Low Volume | \$0 | \$50 | \$128 | \$228 | \$732 | \$1,010 |
| | High Volume | \$0 | \$50 | \$128 | \$228 | \$639 | \$498 |

(1) LEV II vehicles are equivalent to Tier 2 vehicles and thus carry no incremental costs relative to the vehicles that would be sold in Rhode Island in the absence of the LEV II Program.

The potential economic effect of adopting the LEV II program is that there will be slightly higher costs to small businesses and cities and towns that purchase vehicles beginning with MY 2008 vehicles. It is likely that about 93% of new vehicles in the LEV II program will be LEV II, ULEV II, SULEV or PZEV vehicles. Given the relatively low additional initial and lifecycle costs of these vehicles, in general, no significant adverse economic impact to small business or any city or town is expected. Even for AT-PZEVs and city ZEVs, whose initial cost are somewhat higher, the relatively low lifecycle costs are not likely to cause a significant adverse economic impact to any small business or city or town that chooses to purchase them.

During the course of meeting with stakeholders in developing these proposed amendments, there was discussion of the possibility that ZEVs would be delivered to automobile dealers in Rhode Island but there would be no market for these vehicles. Those circumstances could result in an adverse impact on automobile dealers. (This issue is discussed above in the Alternative Approaches Considered section. While no regulatory solution is proposed, DEM will commit to keep a dialogue open with auto dealers and manufacturers as LEV II program implementation proceeds and react to issues that develop because of ZEVs not selling well.) The discussion among stakeholders has lead DEM to determine that there may be an adverse significant economic impact on small business, that is automobile dealers. Therefore DEM is requesting comments on the proposed amendments as to how the amendments can be changed so the potential significant economic impact on automobile dealers can be minimized or eliminated.

Public Hearing

A public hearing regarding the proposed amendments to Air Pollution Control Regulation No. 37 "Rhode Island's Low Emissions Vehicle Program" will be held in the Administration Building, Conference Room "A", Three Capitol Hill, Providence, RI on 16 November 2004 at 1:00 PM. Written comments may be sent to the Office of Air Resources at the address below until 4:00 PM on 16 November, unless the hearing officer extends the comment period.

For more information or copies of the proposed amendments contact:

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